I CLAIM:

1. An electrostatic drive, comprising:

a mover and a plurality of mover electrodes operatively affixed thereto;

a stator and a plurality of stator electrodes operatively affixed thereto, the mover and stator being movable relative to one another via electrostatic force generated between the mover electrodes and the stator electrodes; and

a driver configured to drive the stator electrodes into any of a plurality of sequential voltage states, each voltage state being defined by a combination of LO and HI voltage levels existing at the stator electrodes, where transition from one voltage state to a sequentially adjacent voltage state produces a step size of relative movement between the mover and stator,

where, for each of the voltage states, the driver is further configured to selectively vary voltage applied at one of the stator electrodes to an amount between the LO and the HI voltage levels, in order to produce a proportionally smaller step size.

2. The electrostatic drive of claim 1, where the driver is configured to produce relative movement between the mover and stator based on a digital control command, the driver being further configured to produce relative movement between the mover and stator that varies linearly with the digital control command.

3. The electrostatic drive of claim 2, where the digital control command includes specification of one of the plurality of sequential voltage states.

4. The electrostatic drive of claim 2, where the digital control command includes specification of one or more of the stator electrodes that are to receive a varied voltage which is between the LO and the HI voltage levels.

5. The electrostatic drive of claim 4, where the digital control command includes, for the one or more stator electrodes that are to receive a varied voltage which is between the LO and the HI voltage levels, specification of the degree to which such varied voltage varies from either the HI voltage level or the LO voltage level.

6. The electrostatic drive of claim 1, where the stator electrodes are arranged sequentially on the stator in a plurality of groupings.

7. The electrostatic drive of claim 6, where each grouping includes 6 stator electrodes.

8. The electrostatic drive of claim 1, where the mover electrodes are spaced uniformly from each other, and where the stator electrodes are spaced uniformly from each other.

9. The electrostatic drive of claim 8, where spacing between the mover electrodes differs from spacing between the stator electrodes.

10. The electrostatic drive of claim 8, where the spacing between stator electrodes is (N-1)/N times the spacing between the mover electrodes.

11. The electrostatic drive of claim 10, where N = 7.

12. The electrostatic drive of claim 1, where the mover electrodes and stator electrodes are disposed respectively on a pair of generally planar surfaces of the mover and stator that face each other, the electrostatic drive being configured so that the electrostatic forces generated between the mover and stator electrodes produce fringing effects which cause the generally planar surfaces to move parallel to one another.

13. An electrostatic drive, comprising:

a pair of objects configured to move relative to one another;

a plurality of electrodes operatively secured to one of the objects, the electrodes being configured so that application of voltages to the electrodes creates electrostatic forces which effect relative movement of the objects; and

a driver configured to selectively apply a voltage level to each of the electrodes, the voltage level being selected from the group consisting of a HI level, a LO level, and a scalable level from a range including levels between the HI and LO level, where

the HI level or the LO level is applied to at least one of the electrodes; and

the scalable level is applied to at least one of the other electrodes, where the driver is configured so that varying the scalable level between the HI and LO levels proportionally adjusts the relative movement occurring between the objects.

14. The electrostatic drive of claim 13, where the driver is configured to produce relative movement between the objects based on a digital control command.

15. The electrostatic drive of claim 14, where the driver is configured to produce an amount of relative movement between the objects that varies linearly in proportion to the digital control command.

16. The electrostatic drive of claim 14, where the digital control command includes specification of the voltage levels to be applied to each of the electrodes.

17. The electrostatic drive of claim 14, where the digital control command includes specification of a particular one of the electrodes that is to receive the scalable voltage level.

18. The electrostatic drive of claim 17, where the digital control command includes, for the particular one of the electrodes that is to receive the scalable voltage level, the value of such scalable voltage level.

19. The electrostatic drive of claim 14, where the driver is configured to produce an amount of relative movement between the objects that varies linearly in proportion to a digital control command.

20. The electrostatic drive of claim 13, where the electrodes are disposed upon a generally planar surface of one of the objects, the electrostatic drive being configured such that selective application of voltage levels by the driver to the electrodes causes relative movement between the objects in a direction that is parallel to the surface upon which the electrodes are disposed.

21. The electrostatic drive of claim 13, where one of the objects is a computer storage medium, and where the other of the objects includes an access device for accessing storage locations on the computer storage medium, the electrostatic drive being configured to produce relative movement between the computer storage medium and access device to permit selective access to desired storage locations on the computer storage medium.

22. An electrostatically-driven computer storage device, comprising:

a storage medium and a plurality of storage medium electrodes operatively affixed thereto;

an access device movably coupled with the storage medium, the access device being configured to access storage locations on the storage medium;

a plurality of access device electrodes that are fixed relative to the access device, the storage medium and access device being movable relative to one another via electrostatic force generated between the storage medium electrodes and the access device electrodes; and

a driver configured to drive the access device electrodes into any of a plurality of sequential voltage states, each voltage state being defined by a combination of LO and HI voltage levels existing at the access device electrodes, where transition from one voltage state to a sequentially adjacent voltage state produces a step size of relative movement between the storage medium and the access device,

where, for each of the voltage states, the driver is further configured to selectively vary voltage applied at one of the access device electrodes to an amount between the LO and the HI voltage levels, in order to produce a proportionally smaller step size and thereby increase resolution of the relative movement occurring between the storage medium and access device.